

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT OF: LOWE ET AL. :

PATENT NO.: US 4,831,031 :

ISSUED: MAY 16, 1989 :

TITLE: ARYL PIPERAZINYL (C₂ OR
 C₄)ALKYLENE HETEROCYCLIC
 COMPOUNDS HAVING
 NEUROLEPTIC ACTIVITY

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Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

DECLARATION UNDER 37 C.F.R. §1.324

I, **Harry R. Howard, Jr.**, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon; and I further declare that:

1. I, **Harry R. Howard, Jr.**, was awarded a Bachelor of Arts Degree in Chemistry from Central Connecticut State College in 1974 and a Masters of Science degree in Chemistry from Saint Joseph College of West Hartford, Connecticut in 1985. I have been employed by Pfizer Inc since 1974 as a research scientist. Since 1987 I have been conducting research relating to the central nervous system in the antidepressant and antipsychotic fields.

3. A continuation-in-part (CIP) application of the parent application was filed in the United States Patent and Trademark Office (USPTO) on January 22, 1988.

4. Subsequent to the filing of the parent application, but prior to the filing of the continuation-in-part application, I was assigned to work, as a chemist, on the antipsychotic research project which is the subject matter of United States Patent 4,831,031.

5. I was involved in the (1) conception, (2) reduction to practice and (3) interim activity toward accomplishing the reduction to practice of the new matter incorporated into the continuation-in-part application filed in the USPTO on January 22, 1988.

6. The error of the omission of my name as an invention on United States Patent 4,831,031 arose without any deceptive intention on my part.

Dated: Sept 18, 1998

Harry R Howard Jr.
HARRY R. HOWARD, JR.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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PATENT NO.: US 4,831,031 :

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Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

DECLARATION UNDER 37 C.F.R. §1.324

I, **John A. Lowe, III**, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon; and I further declare that:

1. I, **John A. Lowe, III**, am an employed by Pfizer Inc's Central Research Division in Groton, Connecticut. Pfizer Inc is the assignee of rights in the above application. I received a Bachelor of Arts degree in chemistry from Williams College in 1973 and a Doctor of Philosophy degree in chemistry from the University of California at Los Angeles in 1977.

2. The parent patent application of United States Patent 4,831,031 was filed in the Patent Cooperation Treaty (PCT) Receiving Office (Serial No. PCT/US87/00423) on March 2, 1987.

3. A continuation-in-part (CIP) application of the parent application was filed in the United States Patent and Trademark Office (USPTO) on January 22, 1988.

4. Prior to the filing of the parent application, I was assigned to work, as a chemist, on the antipsychotic research project which is the subject matter of United States Patent 4,831,031.

5. Subsequent to the filing of the parent application, but prior to the filing of the continuation-in-part application, Harry R. Howard, Jr. was assigned to work, as a chemist, on the research project, which is the subject matter of United States Patent 4,831,031.

6. Harry R. Howard, Jr. was involved in the (1) conception, (2) reduction to practice and (3) interim activity toward accomplishing the reduction to practice of the new matter incorporated into the continuation-in-art application filed in the USPTO on January 22, 1988.

6. The error of the omission of Harry R. Howard, Jr. as an invention on United States Patent 4,831,031 arose without any deceptive intention on my part.

Dated: Sept. 16, 1988

John A. Lowe III
JOHN A. LOWE, III

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT OF: LOWE ET AL. :

PATENT NO.: US 4,831,031 :

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 C₄)ALKYLENE HETEROCYCLIC
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 NEUROLEPTIC ACTIVITY :

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

DECLARATION UNDER 37 C.F.R. §1.324

I, **Arthur A. Nagel**, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon; and I further declare that:

1. I, **Arthur A. Nagel**, am an employed by Pfizer Inc's Central Research Division in Groton, Connecticut. Pfizer Inc is the assignee of rights in the above application. I received a Bachelor of Arts degree in chemistry from Allegheny College in 1967 and a Doctor of Philosophy degree in chemistry from the University of Pittsburgh in 1971.

2. The parent patent application of United States Patent 4,831,031 was filed in the Patent Cooperation Treaty (PCT) Receiving Office (Serial No. PCT/US87/00423) on March 2, 1987.

3. A continuation-in-part (CIP) application of the parent application was filed in the United States Patent and Trademark Office (USPTO) on January 22, 1988.

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4. Prior to the filing of the parent application, I was assigned to work, as a chemist, on the antipsychotic research project which is the subject matter of United States Patent 4,831,031.

5. Subsequent to the filing of the parent application, but prior to the filing of the continuation-in-part application, Harry R. Howard, Jr. was assigned to work, as a chemist, on the research project, which is the subject matter of United States Patent 4,831,031.

6. Harry R. Howard, Jr. was involved in the (1) conception, (2) reduction to practice and (3) interim activity toward accomplishing the reduction to practice of the new matter incorporated into the continuation-in-art application filed in the USPTO on January 22, 1988.

6. The error of the omission of Harry R. Howard, Jr. as an invention on United States Patent 4,831,031 arose without any deceptive intention on my part.

Dated: September 16, 1998

Arthur A. Nagel
ARTHUR A. NAGEL

PATENT
PC7180A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT OF: Lowe et al. :
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COMPOUNDS HAVING NEUROLEPTIC :
ACTIVITY :

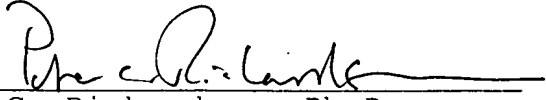
Assistant Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

CONSENT OF ASSIGNEE TO CHANGE OF INVENTORSHIP

Pfizer Inc., assignee of the above application by the assignment document recorded in the U.S.P.T.O. on January 22, 1988 (reel 4876, frame 0784) and the assignment document executed by John A. Lowe, III, Arthur A. Nagel and Harry R. Howard, Jr. that accompanies this document, consents to the correction of inventorship requested in the accompanying "Petition To Correct Inventorship under 37 C.F.R. §1.324".

Date: February 16, 1999.


P. C. Richardson, Ph.D.
Assistant Secretary, Pfizer Inc.

Pfizer Inc
Patent Department, 20th Fl.
235 East 42nd Street
New York, NY 10017-5755
(212) 573-3285

UNITED STATES PATENT AND TRADEMARK OFFICE


CERTIFICATE

Patent No. 4,831,031

Patented: May 16, 1989

On petition requesting issuance of a certificate for correction of inventorship pursuant to 35 USC 256, it has been found that the above-identified patent, through error and without any deceptive intent, improperly sets forth the inventorship. Accordingly, it is hereby certified that the correct inventorship of this patent is:

John A. Lowe, III
Arthur A. Nagel
Harry R. Howard, Jr.


Richard Raymond
Primary Examiner
Art Unit 1611

RECORDATION FORM COVER SHEET PATENTS ONLY

1-31-92

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

John A. Lowe, III Arthur A. Nagel and Harry R. Howard, Jr.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: September 16, 1998

2. Name and address of receiving party(ies):

Name: Pfizer IncStreet Address: 235 East 42nd Street, 20th FloorCity: New York State: New York ZIP: 10017-5755Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No. (s)

US 4,831,031

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Paul H. Ginsburg, Pfizer Inc., 235 East 42nd Street, New York, NY 10017-5755.

6. Total number of pages including cover sheet, attachments and document: 47. Total fee (37 CFR 3.41).....\$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit account number:

16-1445

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

B. Timothy Creagan

Name of Person Signing



Signature

February 16, 1999

Date

Total number of pages including cover sheet: 4

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A S S I G N M E N T

For valuable consideration, the receipt and adequacy of which is hereby acknowledged, we, **John A. Lowe, III; Arthur A. Nagel and Harry R. Howard;** of **28 Coveside Lane, Stonington, Connecticut; 66 Inchcliffe Drive, Gales Ferry, Connecticut; and 272 Westwoods Terrace, Bristol, Connecticut;** respectively, hereby sell, assign and transfer unto PFIZER INC., a corporation organized and existing under the laws of the State of Delaware, United States of America, and having its principal place of business at 235 East 42nd Street, New York, New York 10017, United States of America, our entire right, title and interest, except as limited hereinbelow, in and to provisional patent application of the United States of America, having PFIZER INC. Docket No. **PC7180A** issuing as **US 4,831,031**, and entitled **ARYL PIPERAZINYLC₂ OR C₄ALKYLENE HETEROCYCLIC COMPOUNDS HAVING NEUROLEPTIC ACTIVITY**; and our entire right, title and interest, in the United States of America, in and to all our inventions, whether joint or sole, disclosed in said provisional patent application; and our entire right, title and interest in and to all applications filed in the United States of America for Letters Patent for any or all of said inventions; and our entire right, title and interest in and to all Letters Patent granted in the United States of America on the foregoing applications;

and we hereby sell, assign and transfer unto PFIZER PRODUCTS INC., a corporation organized and existing under the laws of the State of Connecticut, United States of America, and having its place of business at Eastern Point Road, Groton, Connecticut 06340, United States of America, our entire right, title and interest, in all countries of the world except the United States of America, in and to all our inventions, whether joint or sole, disclosed in said provisional patent application; and our entire right, title and interest in and to all patent applications filed outside the United States of

America for Letters Patent for any or all of said inventions; and our entire right, title and interest in and to all Letters Patent granted outside the United States of America on said patent applications filed outside the United States of America; and the right to claim priority from said provisional patent application under the Paris Convention for the Protection of Industrial Property, and under any and all other such treaties and agreements to which the United States of America is a party and which afford similar priority-claiming privileges, in all countries of the world except the United States of America;

and we hereby agree, whenever requested, to communicate to said PFIZER INC. and said PFIZER PRODUCTS INC., and their successors and assigns, any facts known to us respecting said inventions, to testify in any legal proceeding respecting said inventions, and to execute all applications or papers necessary to obtain and maintain proper patent protection on said inventions in all countries of the world.

Signed and witnessed this 16th day of Sept., 1971, at Watson, Ct.

John A. Lowe, III
John A. Lowe, III

In the presence of:

Barbara D. Lowe

Barbara D. Lowe
(Typed or Printed Name of Witness)

Signed and witnessed this 16th day of September, 1998 at
Groton, CT

Arthur A. Nagel
Arthur A. Nagel

In the presence of:

Stanley Jung
Stanley Jung
(Typed or Printed Name of Witness)

Signed and witnessed this 16th day of September, 1998, at
Groton, CT

Harry R. Howard
Harry R. Howard

In the presence of:

Mavis Adam
Mavis Adam
(Typed or Printed Name of Witness)

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

OUT 2-2-1988
PATIENT DEPT

PLEASE SEND TO:

TO: PETER C. RICHARDSON
PFIZER INC.
235 EAST 42ND STREET
NEW YORK, NY 10017-5755

P.C. 71807A

PCR	_____	HWO	_____
LCA	_____	AJS	_____
BMC	_____	EOS	_____
MD	_____	RFS	_____
PHG	_____	RCT	_____
GH	_____	CCB	_____
CE	_____	RKE	_____
JLE	_____	AEF	_____
JTL	_____	JMM	_____

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE U.S. PATENT AND TRADEMARK OFFICE ON THE REEL AND FRAME NUMBER REFERENCED BELOW. A DIGEST OF THE DOCUMENT HAS ALSO BEEN MADE AND APPEARS IN THE OFFICE'S RECORDS AS SHOWN:

ASSIGNOR: 001 LOWE, JOHN A. III
ASSIGNOR: 002 NAGEL, ARTHUR A.

DOC DATE: 01/20/88
DOC DATE: 01/20/88

RECORDATION DATE: 01/22/88 NUMBER OF PAGES 001 REEL/FRAME 4876/0784

DIGEST: ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE: 501 PFIZER INC., 235 EAST 42ND STREET, NEW YORK, NY, A CORP.
OF DE

SERIAL NUMBER 7-146886 FILING DATE 01/22/88
PATENT NUMBER ISSUE DATE 00/00/00

TITLE OF INVENTION: PIPERAZINYL-HETEROCYCLIC COMPOUNDS

INVENTOR: 001 LOWE, JOHN A. III
- INVENTOR: 002 NAGEL, ARTHUR A.